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Product: Daily Forecast of Geomagnetic Activity
Issued: 2025 June 01 06:04UTC
Prepared by the Athens Space Weather Forecasting Center
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**I. Solar activity**
*--Current Status*
Solar Flux (10.7cm) measured on 31.05.2025 at 23:00 UTC was 164 sfu.
The background X-Ray flux is at the class C1.0 level.
Four M-class solar flares were produced on May 31 and the biggest was the M4.5.
AR4100 erupted on May 31 at 08:18 UT peak time producing a M4.5-class solar flare and a radio blackout of category R2.
No obviously Earth directed CMEs were observed in available LASCO imagery on May 28-29.
A coronal hole (CH1297) at southern hemisphere rotated across the central meridian on May 26-27.
A recurrent negative polarity trans equatorial coronal hole (CH1298) will be Earth facing on May 27-31.
---CME arrival forecast
A CME was observed on May 30 at 06:38 UT. This CME is expected to reach Earth on June 02 between at 05:33 UT and 07:08 UT according to EAM predictions.
Another CME was observed on May 31 at 00:15 UT. The source is an M8.1 flare from AR 14100 (N12E12). This CME is expected to reach Earth between on June 01 at 07:59 UT and on June 02 at 07:09 UT.

**II. Solar Energetic Particle Events**
GOES Proton Flux for particles with energies above 10 MeV exceed the SWPC 10 MeV warning threshold on May 31 at 17:10 . A solar radiation storm of level S2 was also observed.

**III. Interplanetary and Geomagnetic conditions**
The solar wind speed measured by ACE satellite reached the max value 980 Km/s on June 01 at 05:30 UT during the last 24 hours.
The solar wind speed from STEREO A was detected 400 Km/s during the last 24 hours.
The vertical component of IMF Bz reached the max value -20 nT on June 01 at 05:30 UT during the last 24 hours.
The geomagnetic field was at quiet to minor storm (G1) levels during the last 24 hours.
The Kp index now is at minor storm (G1) levels with Kp=5.

**IV. 3-day Geomagnetic Activity Forecast**
The geomagnetic field is expected to be at active to severe storm (G4) levels on June 01-02 due to the continuous effects of halo CME on May 31 and at unsettled to moderate storm (G2) on June 03.

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| **Date** | **Ap index forecast** | **Geomagnetic Activity level** |
| 01.06.2025 | 50 | Active to Severe storm (G4) |
| 02.06.2025 | 55 | Active to Severe storm (G4) |
| 03.06.2025 | 30 | Unsettled to Moderate storm (G2) |

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